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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,492	06/20/2002	Nicole Baker	C70366	8733

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EXAMINER

KRASS, FREDERICK F

ART UNIT PAPER NUMBER

1614

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,492

Applicant(s)

BAKER ET AL.

Examiner

Frederick Krass

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1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 17 and 24 is/are allowed.
- 6) ☒ Claim(s) 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/11/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Information Disclosure Statement

The citation of WO 97/21336 on the IDS dated 8/11/2006 appears to be in error since that document is unrelated to the instant application. Accordingly, the document has not been considered.

Title

The title is objected to insofar as it is not adequately descriptive.

Previous Rejections

All previous rejections are withdrawn.

Obviousness Rejection

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buisson et al (GB 2, 207, 335 A) in view of Gray (USP 2,943,941).

The primary reference discloses beverages having pH's of from 2.5 to 5.0, preferably 3.0 to 4.5 (page 13, lines 13-19), calcium, acidulants such as citric and malic acids (page 7, lines 16-27), and premix stabilizers such as gums and pectins (page 11, lines 9-14). It differs from the instant claims in its silence regarding polyvinylpyrrolidone ("PVP").

Polyvinylpyrrolidone is a known premix stabilizer for beverages (beer specifically), as illustrated by the secondary reference. PVP is taught to be particularly effective where high temperature processing is involved. See column 1, lines 25-27, 63 and 64, for instance. The

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secondary reference differs from the instant claims insofar as it is silent regarding a pH of less than or equal to 5.

It would have been obvious to have used PVP as a premix stabilizer in the primary reference, motivated the desire to take advantage of its art-recognized crystallization inhibiting properties (particularly where high processing temperatures were involved) as taught by the secondary reference.¹

Regarding claim 18, the examiner maintains his position (as elaborated on previously during prosecution of this case) that the preamble “for reducing tooth erosion” is non-limiting since the body of the claim is drawn to a self-contained method. Applicant should note that claim 18 would be allowable, however, if amended in the same format as instant claims 1, 13 and 17.

Allowable Subject Matter

Claims 1-13, 17 and 24 are allowable as presently advised.

The prior art of record does not fairly suggest, teach or disclose adjusting the tooth erosion potential of orally administrable compositions as recited instantly.

Dawes (“What is the Critical pH and Why Does a Tooth Dissolve in Acid?”, *J. Can. Dent. Assoc.*, vol. 69, no. 11, pp. 722-724 (December 2003)) illustrates the state of the art. (It is not available as prior art because its publication date is later than the effective filing date of the

¹ Regarding instant claims 20 and 21, since PVP and gums are both individually known as emulsion stabilizers, their use in combination would be obvious as well. This position is consistent with established precedent which holds that, generally, it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in the prior art. *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980); *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960).

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instant application). As discussed therein, the critical pH at which tooth erosion occurs is not a fixed value, but varies inversely proportionally to the calcium and phosphate concentrations in the solution. Thus, adjusting the tooth erosion potential of a given beverage requires judiciously selecting not only beverage pH, but also balancing it against the concentrations of calcium or phosphate (or both) present. See page 723, first paragraph of the lefthand column on that page. (Note also that the reference suggests that already eroded enamel cannot be remineralized: page 724, second full paragraph on the page).²

² Prior to the filing of this application, erosion potentials of beverages could at best only be generally predicted. See Lussi et al ("Prediction of the Erosive Potential of Some Beverages", *Caries Res.*, vol. 29, pp. 349-354 (1995)).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick Krass whose telephone number is (571) 272-0580. The examiner can normally be reached on Monday-Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached at (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frederick Krass
Primary Examiner
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